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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,438	04/20/2001	Igor Pankovcin	206582	1728
23460	7590	12/04/2003	EXAMINER	
LEYDIG VOIT & MAYER, LTD TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6780			GOLINKOFF, JORDAN	
			ART UNIT	PAPER NUMBER
			2174	3

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,438

Applicant(s)

PANKOVICIN, IGOR

Examiner

Jordan S Golinkoff

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 1, 2, 3, and 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because in Figure 1, element 4 should point to the left pane not the whole window-. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:
 - a. Page 1, line 21 – there is no element 12 in figure 1 or figure 2
 - b. Page 5, line 9 – figure 2 should be changed to figure 5Appropriate correction is required.

Claim Objections

4. Claims 1 and 24 are objected to because of the following informalities:
 - a. Line 2 – “for the” should be changed to “of”
 - b. Line 19 – “thesecond” should be changed to “the second”Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 12-17, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Wanderski (US006147687A).

As per claim 1, Wanderski teaches a method for presenting categorized information on a computer-enabled user interface, the method comprising:

- a. displaying one or more categories of information (column 5, lines 18-22).
- b. receiving a user selection of a category of the one or more categories (column 9, lines 21-25).
- c. independently retrieving data associated with the selected category so that the displayed categories remain responsive to user interaction while the data is being retrieved (column 4, lines 61-63).

As per claim 2, which is dependent on claim 1, Wanderski teaches placing a request for retrieval of the data in a queue; and processing the request from the queue asynchronously with respect to the displaying step (Column 8, lines 54-55 and column 10, lines 38-40).

As per claim 3, which is dependent on claim 1, Wanderski teaches receiving a user request for cancellation of the data retrieval; and, in response to the user request, canceling the

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data retrieval (column 10, lines 4-6, *requests can be viewed as objects in the data structure and deleted by the user*).

As per claim 4, which is dependent on claim 1, Wanderski teaches that the selected category is one of a plurality of categories selected by the user, and the method further comprises: receiving a user request to boost the priority of at least one selected category; and, in response to receiving the user request, boosting the priority of the at least one selected category (column 10, lines 4-6, *requests can be viewed as objects in the data structure and moved by the user thereby changing their priority*).

As per claim 5, which is dependent on claim 1, Wanderski teaches a computer-readable medium having stored thereon computer-executable instructions for performing the method of claim 1 (column 6, lines 14-15).

Claims 17 and 23 are similar in scope to claim 5, and are therefore rejected under similar rationale.

As per claim 12, which is dependent on claim 1, Wanderski teaches that the categories are displayed as nodes of a graphical hierarchy (column 5, lines 18-23).

Claim 15 is similar in scope to claim 12, and is therefore rejected under similar rationale.

As per claim 13, which is dependent on claim 12, Wanderski teaches that the graphical hierarchy is a tree (column 5, lines 18-23).

Claim 16 is similar in scope to claim 13, and is therefore rejected under similar rationale.

As per claim 14, Wanderski teaches a computer-implemented method for displaying a plurality of categories, the method comprising:

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- a. displaying a populated portion of the plurality of categories on a screen (figure 3C).
- b. displaying a placeholder to represent an unpopulated portion of the plurality of categories, wherein the placeholder indicates to the user the status of the data required to populate the unpopulated portion (column 10, lines 10-13).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6-9, 11, 18-21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanderski (US006147687A).

As per claim 6, which is dependent on claim 1, Wanderski teaches that the displaying step is performed by a main thread and the retrieving step is performed by a worker thread executing asynchronously with respect to the main thread (column 10, lines 44-48 and column 9, lines 52-55). Wanderski discloses the use of multiple threads executing asynchronously to process an update on a data structure while remaining responsive to user input. However, Wanderski does not explicitly disclose a worker thread retrieving the data while the main thread displays the data. Although Wanderski does not expressly teach these features, Official Notice is given that it is notoriously well known in the art to use multiple threads executing asynchronously to perform tasks on a computer. It would have been obvious to one of ordinary

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skill in the art at the time the invention was made to use multiple threads executing asynchronously to allow the user to interact with the data structure while search and retrieval functions are executing asynchronously.

As per claim 7, which is dependent on claim 6, Wanderski teaches that when the worker thread has finished retrieving the data, it notifies the main thread that the data is available (column 10-11, lines 65-1, *control is transferred after updates and retrievals are complete*). As mentioned above, Wanderski discloses the use of multiple threads executing asynchronously to process an update on a data structure while remaining responsive to user input. However, Wanderski does not explicitly disclose the worker thread notifying the main thread upon its completion of retrieving the requested data. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the multiple threads executing asynchronously to communicate to allow the user interface to indicate changes of state as the search proceeds.

As per claim 8, which is dependent on claim 6, Wanderski teaches that the worker thread places the retrieved data in a cache, the main thread accesses the data from the cache and displays the data (column 12, lines 3-7, *it is known that a cache is a type of short term memory buffer*). Although Wanderski does not explicitly mention the worker thread and the main thread placing and retrieving data in a cache, Wanderski does mention the use of a cache to store pending updates (column 9, lines 28-29). Official notice is given that the use of a cache as short term memory used to store frequently accessed data is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to use a cache to store and retrieve data that would be frequently used in order to reduce the processing time required to display and update a data structure.

As per claim 9, which is dependent on claim 1, Wanderski teaches that the retrieved data is stored in a cache, the method further comprising obtaining the data from the cache for display on a user interface (column 9, lines 28-29 and column 12, lines 3-7, *it is known that a cache is a type of short term memory buffer*). The obviousness of the limitation of storing, retrieving, and displaying data from a cache has been addressed above in claim 8.

As per claim 11, which is dependent on claim 9, Wanderski teaches receiving a user request to display a partially retrieved portion of the data; in response to the user request, obtaining the partially retrieved portion from the cache; and displaying the partially retrieved portion of the data (column 10, lines 20-26). The obviousness of the limitation of storing, retrieving, and displaying data from a cache has been addressed above in claim 8.

As per claim 18, Wanderski teaches a computer-implemented method for presenting data, the method comprising:

- a. executing a first thread for displaying a graphical hierarchy having one or more nodes (column 9, lines 52-55).
- b. executing, independently of the first thread, a second thread of execution for retrieving data associated with at least one of the one or more nodes (column 9, lines 52-55, *2 independent threads executed asynchronously to maintain a responsive display while retrieving data to populate categories*).

The obviousness of the limitation of using multiple threads asynchronously to retrieve and display data has been addressed above in claim 6.

As per claim 19, which is dependent on claim 18, Wanderski teaches that the second thread retrieves data for populating the hierarchy (column 9, lines 52-55). The obviousness of the limitation of using multiple threads asynchronously to retrieve and display data has been addressed above in claim 6.

As per claim 20, which is dependent on claim 18, Wanderski teaches receiving a user selection of a node of the one or more nodes, wherein the second thread retrieves data associated with the selected node (column 9, lines 52-55). The obviousness of the limitation of using multiple threads asynchronously to retrieve and display data has been addressed above in claim 6.

As per claim 21, which is dependent on claim 20, Wanderski teaches displaying the retrieved data on a computer screen adjacent to the hierarchy (column 6, line 10).

As per claim 26, Wanderski teaches a system for presenting categorized information on a computer-enabled user interface, the system comprising:

- a. a user interface for receiving a user selection of at least one category of information (column 6, lines 4-10).
- b. a means for executing a main thread for requesting the retrieval of data associated with the selected category (column 9, lines 52-55).
- c. a cache that is accessible to the main thread (column 12, lines 3-7, *it is known that a cache is a type of short term memory buffer*).
- d. a means for executing a worker thread for retrieving the requested data and storing it in the cache column 12, lines 3-7, *it is known that a cache is a type of short term memory buffer*).

Wanderski discloses the use of multiple threads executing asynchronously to process an update on a data structure while remaining responsive to user input. However, Wanderski does not explicitly disclose a worker thread retrieving the data while the main thread displays the data. Although Wanderski does not expressly teach these features, Official notice is given that it is notoriously well known in the art to use multiple threads executing asynchronously to perform tasks on a computer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use multiple threads executing asynchronously, as taught by Wanderski, to allow the user to interact with the data structure while search and retrieval functions are executing asynchronously.

Furthermore, Wanderski does not explicitly mention the worker thread and the main thread placing and retrieving data in a cache, Wanderski does mention the use of a cache to store pending updates (column 9, lines 28-29). Official notice is given that the use of a cache as short term memory used to store frequently accessed data is notoriously well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a cache to store and retrieve data that would be frequently used in order to reduce the processing time required to display and update a data structure.

9. Claims 22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wanderski (US006147687A) in view of Brozowski et al. ("Brozowski", US006559871B1).

As per claim 22, which is dependent on claim 20, Wanderski teaches receiving a user selection of a node of the one or more nodes, wherein the second thread retrieves data associated with the selected node (column 9, lines 52-55). Wanderski does not disclose displaying the retrieved data on a computer screen in one pane and displaying the hierarchy on another.

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Brozowski teaches that it is known to display retrieved data in a split pane window setup (figure 10C). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a multithreaded method of selecting and receiving data in a tree hierarchy, as taught by Wanderski, with a method to display retrieved contents of a hierarchy in an adjacent pane, as taught Brozowski, in order to display a greater amount of information in one window.

As per claim 24, which is dependent on claim 18, Wanderski teaches a method to retrieve and display data using more than one thread (column 9, lines 52-55). Wanderski does not disclose that the second thread retrieves data based on an assumption as to whether the user wishes to have the data retrieved, without an explicit selection by the user. Brozowski teaches that it is known to automatically retrieve data without explicit user instructions (column 15, lines 35-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine a method to retrieve and display data using more than one thread, as taught by Wanderski, with a method to automatically retrieve data without explicit user instructions, as taught by Brozowski, in order reduce or eliminate the delay of loading new information into the display.

As per claim 25, which is dependent on claim 18, Wanderski teaches a method to retrieve and display data using more than one thread (column 9, lines 52-55). Wanderski does not disclose that the second thread retrieves data based on which nodes have been frequently selected by the user. Brozowski teaches that it is known to use past usage data to predict future selections by the user and to automatically open nodes that correspond to these predictions (column 15, lines 50-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a method to use past usage history to automatically populate and

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open nodes, as taught by Brozowski, with a method to retrieve and display data using more than one thread, in order to anticipate the user's requests and thereby enhance the graphical user interface by reducing or eliminating delayed loading of information.

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wanderski (US006147687A) in view of Bannon et al. ("Bannon", US006047357A).

As per claim 10, which is dependent on claim 9, Wanderski teaches that the retrieved data is stored in a cache, the method further comprising obtaining the data from the cache for display on a user interface (column 9, lines 28-29 and column 12, lines 3-7, *it is known that a cache is a type of short term memory buffer*). Wanderski does not disclose receiving a user request to refresh the display of the data; and, in response to the user request, marking the data in the cache as dirty. Bannon teaches that it is known to mark a cache to indicate a change of state (column 5, lines 62-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a method to mark the cache to indicate a change of state, as taught by Bannon, with a method to store retrieved data in a cache and display data from this cache, in order to indicate a change of state and the need to alter the display of the changed information.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan S Golinkoff whose telephone number is 703-305-8771. The examiner can normally be reached on 5 - 4/9 Compressed Work Schedule.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 703-308-0640. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Jordan Golinkoff
Patent Examiner
10/31/2003

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